



BAKER COLLEGE
STUDENT LEARNING OUTCOMES

CS6160 – Artificial Intelligence
3 Semester Credit Hours

Student Learning Outcomes and Enabling Objectives

1. Research how AI impacts society
 - a. Categorize the common uses of AI
 - b. Examine an ethical scenario of AI
 - c. Evaluate the evolution of AI
2. Design supervised and unsupervised learning
 - a. Compare neural networks and decision trees
 - b. Rank scales and efficiencies in deep learning
 - c. Identify the appropriate statistical learning model
 - d. Assess statistical learning models
3. Evaluate how AI retrieves and uses information to solve problems.
 - a. Categorize how AI acquires information
 - b. Summarize how AI evaluates the information it gathers
 - c. Assess approaches to produce the desired output
 - d. Formulate requests for AI
4. Construct an appropriate approach to solving an AI problem
 - a. Classify AI algorithms
 - b. Evaluate an appropriate algorithm for the scenario
 - c. Assess a solution to the scenario
5. Apply various AI techniques for autonomous decision-making
 - a. Explain concepts of probability and uncertainty in AI
 - b. Describe the principles and applications of fuzzy logic
 - c. Describe various knowledge representation techniques in AI
6. Investigate challenges to achieving true autonomy in Robot/Agent operations
 - a. Examine the uses of both physical robots and virtual agents
 - b. Discuss ethical considerations on the use of autonomous robots and agents
 - c. Survey challenges to achieving true autonomy
 - d. Summarize the evolution of autonomous robots and agents

Big Ideas and Essential Questions

Big Ideas

- Ethical and societal implications of AI
- Neural networks and deep learning
- Integrating AI into the world
- Knowledge representation and searching
- Robotics

Essential Questions

1. How does AI impact society?
2. How do machines learn?
3. How does AI interact with the world?
4. How does AI make decisions?
5. How do autonomous agents evolve?

These SLOs are approved for experiential credit.

Effective: Spring 2025